DEPARTMENT OF NURSING EDUCATION

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EDUCATION IN TUBERCULOSIS FOR STUDENT NURSES[1]

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THE subject of education in tuberculosis for our student nurses is one in which I have been actively interested for the past four years. In that time forty-two of our student nurses have had from one to two months' practical experience in tuberculosis nursing at our county sanatorium.

I cannot believe that any intelligent woman who is interested in the education of nurses today can fail to realize that there is a very definite need by nurses for a knowledge of tuberculosis, in order that they may intelligently take part in the educational campaign for the eradication of this disease.

For what purpose are we educating nurses and what should a diploma in nursing mean? Surely to be worth anything it should mean that the nurse who holds it is prepared, through theoretical and practical courses, to help prevent and to care for the common diseases that develop in the community in which she is following her profession. This imposes an obligation upon our schools to give, in addition to surgical, medical and obstetrical training, practical and theoretical work in the care of children and, at the present time surely, in that most prevalent of all diseases in many communities, tuberculosis.

Now let us see how much of the general training given in a hospital that cares for medical, surgical, obstetrical patients and children is in any way a preparation for the field of tuberculosis nursing? The general medical training and the thorough surgical technique acquired are surely a good foundation on which to build the special training. Are these, with a good course of lectures on tuberculosis, enough? I do not think so. We must give our student nurses some practical experience in watching patients with this disease in all stages, especially incipient cases, because only by familiarity with the disease in its various phases and stages can they appreciate the immense importance of prevention.

If we can by actual experience teach every nurse who goes out

[1] Paper read at the Mississippi Valley Conference on Tuberculosis, September 13, 1921.

of a general hospital the following things, I think we can feel, that while we have not trained a specialist in tuberculosis, we have laid a sound foundation:

a. That tuberculosis is preventable.
b. That early diagnosis and proper treatment are all important.
c. That she can care for these patients as she does for other infectious cases without becoming infected herself.
d. That the function of the nurse in this field is first, last, and always to teach.
e. That she has a responsibility to the community to help those who are specialists in this field.
f. That she must be familiar with the early symptoms and with the main points in the treatment and methods of controlling the spread of the disease.

How many of our schools of nursing today are sending out students with this much knowledge of tuberculosis?

Besides this minimum requirement we also need nurses prepared for the following lines of work: superintendents of nurses in tuberculosis institutions, where there is teaching and training of student nurses to be done; nurses for the care of private patients with tuberculosis who may be either advanced or incipient cases, the latter requiring very special preparation on the part of the nurse; nurses to go into the homes of the poor with this disease, where, to the ability to give personal care to the patient, must be added the ability to teach the family to protect themselves and the public. Obviously the nurse filling these positions should have special training in this field,—in varying degrees perhaps,—for medical and surgical training received in a general hospital will not properly fit her for this work.

I do not think we, in general hospitals, should attempt to train nurses as heads of such institutions, or to become head workers in any form of tuberculosis nursing, this should be post-graduate work. But we should give every student nurse enough knowledge of, and experience with this disease to enable her to care for the individual patient, to give intelligent advice to these patients wherever she meets them, and to coöperate with the agencies caring for such cases.

How shall we get this experience, how much time shall we give to it, and at what time in the student's training will it be most valuable?

For general hospitals that do not admit these cases there is no way except through affiliation. This is always a difficult problem, but it can be done.

As to the amount of time necessary for this branch of nursing, my own experience has led me to feel that there should be given about

fourteen hours of lecture and class work, including some talks given by expert social workers in this field, together with six weeks to two months of practical work in a sanatorium, well-equipped, and administered by those who are at least as much interested in what the student *gets* as in what she gives. I think the general tendency in these affiliations is to require too long a period of actual bedside care in the advanced cases. The student needs some experience with patients in this stage of the disease, but the *preventive* side must be strongly emphasized, and in addition, the manner of teaching the public the simple methods of prevention, the social side, and the occupational therapy useful in these cases must all be taught. A dispensary service is most helpful, so that the student may see the patient as she will meet him in the home.

Of course the ideal time for giving this work is late in the training after the student has had her medical and surgical care of patients and, when possible, after she has had some work in the operating room and has become familiar with good surgical technique.

The following personal experience has, I think, impressed me with the need for this training for our nurses. An appeal came to me from a far off state in which I am interested, for a contribution to a fund that was being raised to provide more beds in the State Sanatorium for Tuberculosis, for graduate nurses with this disease. The letter stated that already a cottage with seven beds was being maintained by nurses, but that these beds were full and that more were needed. It seemed to me there might be some relation between this and the rather general lack of a knowledge of this disease and its treatment among nurses.

This brings me to a question which I consider a serious one. Are the authorities in the sanatoria to which we are asked to send our students for training, or as workers after graduating, giving as much attention to the conditions under which the nurses live as they should? Can we be assured that the nurses we send into their institutions will return as well, or even better, than when they entered? I should like to say that our nurses in the past four years of affiliation have almost without exception improved physically and have gained in weight and color. I have never had any nurse raise a question as to taking this service.

I think it is just as bad to expect nurses to live in the same building, share the same dining room and sitting room with patients in such institutions as it would be in a general hospital. General hospitals are fast getting away from this pernicious habit. I would advise you to follow their example. I feel very strongly that as in general hospitals, so in sanatoria for tuberculosis, nurses when off

duty should be relieved of the presence of patients. To be with ill people, especially hopeless cases, as practically all advanced cases of tuberculosis are, from eight to twelve hours a day, is depressing and a nervous strain. It should be made possible for the nurses to get away from the thought and sight and out of hearing of sick people at meals and when off duty. It seems a sad commentary on the practical application of our knowledge of this disease and the methods of prevention, if the well we send to care for these patients succumb to the disease because of improper provision for their living conditions. I know this is not the case everywhere, it should not be the case anywhere. Given reasonable hours of work, proper food, clothing, and housing, and opportunity for recreation (the very conditions which enter into the treatment of the tuberculous patient at the present time), and the people caring for the patient should improve physically rather than become susceptible.

We have decided in our public health nursing courses to offer to every student taking the four months' course, and to require those taking the full eight months' course, two weeks in a sanatorium chosen by us, provided they have had no training in tuberculosis. We feel that this time should be very carefully planned, and that certain definite things must be given to the student. We look to the specialists in this field to advise us how to plan this time so that the student will come out feeling a definite responsibility toward those engaged in this work in her community and state, to find all cases and put them in touch with the proper agencies, and to follow up those under treatment. We give to all students in these courses sixteen lectures by experts in this field, a short time in a tuberculosis dispensary, and in the tuberculosis division of the City Board of Health. They see these cases under home conditions during their service with the Visiting Nurses.

I would not leave you under the impression that I have been able to practice all I preach, that is, I have not found it possible as yet to give to every nurse graduating from our school a service in tuberculosis. I am glad to report, however, that in the more recent classes a larger proportion than in the classes during the early years of the affiliation have had it.

From the practical standpoint, just so long as our hospitals, general and special, continue to demand that all the work connected with their patients (in many cases not nursing care in any sense) be done by student nurses, just so long will it be impossible for the women at the head of our schools to give to every student *only* the amount of practical experience in the various services that is really necessary for the student's education. When our special institutions

are partially manned with paid service, which may be supplemented by affiliating students, then will it be possible to assign the student to definite terms of service for the length of time necessary for her to get what there is of knowledge and experience in that service and then move her to another. This would be equally true of a special institution for orthopedic cases.

To illustrate what I mean, I have had experience with a hospital in which students were kept five months, out of three years, on an active maternity service, fifty beds, taking care of mothers and babies, with not a day in the delivery room. Was this amount of practical experience necessary, or was it a means of getting the nursing work of the institution done at little cost? This is not an isolated instance, it is happening in many hospitals today.

MINIMUM STANDARDS FOR THE INSTRUCTION OF STUDENT NURSES IN THE THEORY AND PRACTICE OF TUBERCULOSIS NURSING

Recommended by The National League of Nursing Education

A. Course of Instruction:
   1. Length, two months of practical work which should include actual experience, under proper supervision, in the care of all types of cases.
   2. Class and lecture work, not less than 2 hours weekly or 15 hours in all.

B. Requirements for Hospitals and Sanatoria:
   1. Size, daily average of 45 patients or over.
   2. Types of cases treated, ambulant, semi-ambulant and bed cases. The larger proportion preferably in open wards.
   3. Staff: (a) Resident medical director, (b) Superintendent of nurses, (c) Instructor. Both superintendent of nurses and instructor should be registered nurses, with some experience in general hospital work and should have at least one year's experience in the care of tuberculous patients under the supervision of a physician specially qualified for this work.
   4. Student Nurses: (a) Time on duty, not more than 8 hours daily or 52 hours weekly, (b) Quarters, must have nurses' home or sleeping quarters separate from patients, (c) Provision for recreation and social life apart from patients.
   5. Teaching Equipment: (a) Well equipped class and demonstration room, (b) Reference library, with up-to-date literature,—books, magazines, pamphlets, etc., on tuberculosis.

OUTLINE OF LECTURES, CLASSES AND DEMONSTRATIONS ON TUBERCULOSIS NURSING FOR STUDENT NURSES

Note:—It is recommended that the lectures be given by a physician who is a specialist in Tuberculosis, and that so far as possible they should be accompanied by clinics. The classes and demonstrations will all be given by the nurse instructor following, if possible, the lecture by the physician.

I. Lecture. Introductory

A. History of Tuberculosis:
   1. Ancient references.
   2. Laennec, Sylvius, Bayle, Villezin, Cohnheim, Brehmer, Dettweiler, Koch, Trudeau.

B. General Distribution of Tuberculosis:
   1. Geographic.
   2. Racial, — Negroes, Indians, Italians, Irish, Jewish, etc.
   3. Social,—rural and urban incidence.
   4. Sex.
   5. Age.
   6. Numerical Incidence, — (a) Morbidity and mortality as shown by census and insurance reports, Framingham Community Health Demonstrations and other surveys, drafts and army reports; (b) Absolute decrease in general; (c) Relative increase among certain races (Negroes, Indians, Esquimos).

II. Class and Demonstration. Admission of Patient

A. Technique in the Examining Room:
   1. Preparation of patient for examination, etc.
   2. Weight—special care.
   3. Temperature, pulse and respiration—special care.
   4. Charting of findings.

B. Mode of Approach:
   1. Personal interest.
   2. Presentation of rules and regulations.
   3. Presentation of articles of prevention.
   4. Details of care of personal clothing: (a) Elimination of handkerchiefs; (b) Laundry instruction; (c) Introduction to other patients.

III. Lecture. Tuberculous Infection

A. Bacteriological and Pathological Conception of Tuberculosis:
   1. Prior to 1882.
   2. Subsequent to 1882.

B. Characterization of Germ:
   1. Size.
   2. Viability.
   3. Types,—(a) Human, (b) Bovine, (c) Avian.
   4. Methods of isolation and examination.

C. Sources of Infection:
   1. Sputum.
   2. Milk.
   3. Other sources.

D. Theories of Invasion:
   1. Inhalation.
   2. Ingestion.
   3. Inoculation.

E. Theories of Resistance and Immunity:
   1. Racial factors.
   2. Environmental factors.

F. Tuberculous Infection—Chiefly in Childhood:
   1. Varies according to:
      (a) Age.
      (b) Condition of child.
      (c) Size and repetition of dose.
   2. Not every infection is followed by clinical disease. Distinction between tuberculous infection and tuberculous disease must be emphasized.
   3. Fallacy of theory that tuberculosis is inherited.

IV. Class and Demonstration. Prevention of Infection

A. Sputum Technique:
   1. Care and disposal—instruction in different modes.
   2. Mouth Hygiene.
   3. Cough:
      (a) Control of.
      (b) Protection.
   4. Sneezing—spray.
   5. Laboratory specimen:
      (a) Quantity.
      (b) Manner and time of collection.
   6. Hand washing:
      (a) Nurses.
      (b) Patients.
   7. Thermometers:
      (a) Sterilization.
      (b) Accuracy.

B. Care of Room:
   1. Ventilation.
   2. Cleaning of floors:
      (a) Sweeping.
      (b) Dusting.
      (c) Washing.
      (d) Disinfection.
   3. Sterilization of bedding, dishes, etc.

C. Nurse's Care of Self:
   1. General Hygiene.
   2. Precaution.
   3. Disinfectants.

V. Lecture. Tuberculous Disease

A. Tuberculous Disease — Chiefly in Adult Life (Especially Pulmonary Tuberculosis):
   1. By careful history frequently can be traced through recurring periods of ill health to childhood infection by the tubercle bacillus.
   2. Conditions favoring development of active disease: (a) Disease (pneumonia, pleurisy, measles, whooping cough, influenza, etc.); (b) Pregnancy, parturition and lactation; (c) Mental or physical stress and strain; (d) Unsanitary living or working conditions; (e) Injury; (f) Dissipation; (g) Malnutrition; (h) Lack of sufficient sleep, especially in childhood.

B. Types of Disease at Different Ages:
   1. Infants: (a) Generalized; (b) Disseminated; (c) Acute.
   2. Children: (a) Bones; (b) Joints; (c) Lymph Nodes; (d) Meninges.
   3. Adults: (a) Lungs chiefly; (b) Skin; (c) Kidneys; (d) Fistula; (e) Other tissues.

C. Pulmonary Tuberculosis:
   1. Anatomy of chest and lungs.
   2. Pathology of tubercle, (Infiltration, caseation, cavitation, fibrosis, calcification).
   3. Classification of stages: (a) Incipient; (b) Moderately advanced; (c) Far advanced. (See National Tuberculosis Association standards.) "Open" and "closed" cases, "Active" and "Inactive" cases, "Ambulant," "Semi-ambulant" and "Bed" cases.

VI. Class and Demonstration. General Nursing Care of Tuberculous Patient

A. The Bed:
   1. Its equipment.
   2. Method of making for outdoor sleeping.

B. Bathing:
   1. Need of protection.
   2. Importance of keeping skin active.

3. Morning and evening toilet for bed and ambulance patient.
4. Toilet article technique,—tooth brushes, hair brushes, towels, individual soap.
5. Attention to excretions.

C. Night Sweats—After-Care.
D. Care of the Advanced Case.
E. Changing of Patient in Bed, etc.

VII. Lecture. Tuberculous Disease, *Continued*

A. Symptoms:
1. Lassitude.
2. Weakness.
3. Cough.
4. Hoarseness.
5. Expectoration.
6. Dyspnoea.
7. Fever.
8. Rapid pulse.
9. Pain in chest.
10. Night sweats.
11. Hemoptysis.
12. Loss of appetite.
13. Digestive disturbances.
14. Nervous instability.
15. Underweight or loss of weight.
16. Slow recovery from other diseases.

B. Early Diagnosis:
1. Necessary for successful treatment.
2. Necessary for successful prevention and eradication.
3. Should not be made on insufficient evidence.
4. Important factors in diagnosis: (a) Family and personal history; (b) Physical examination of chest; (c) X-ray by fluoroscope and plates; (d) Clinical laboratory findings.

VIII. Class and Demonstration

A. Observation of Case — Especially During First Week:
1. For determining diagnosis by the physician.
2. For determining treatment by the physician.
3. Temperature, pulse, respiration: (a) Under rest; (b) As affected by exercise.
4. Careful collection of laboratory specimens.

B. Records:
1. Accuracy of records cannot be too strongly emphasized.
2. Different methods of keeping: (a) Absolute accuracy essential to any method; (b) Conciseness desirable for any method.
3. Exhibit of various forms.

C. Study of Tuberculous Patient in Relation to Mental Attitude, etc.:
1. Individual characteristics.
2. Training in self-control, etc.

IX. Lecture. Treatment—General Principles

A. Fundamental Factors:
1. Rest: (a) Physical; (b) Mental (sleep and repair).
2. Food: (a) Food value; (b) Amount; (c) Variety; (d) Food for special conditions, (such as hemorrhages, laryngitis, tuberculosis of intestines, etc.).
3. Fresh air: (a) Room, porch, yard, roof and tent—sleeping; (b) Arrangement of bed and sitting-out chair, with reference to drafts, sun, etc.; (c) Proper clothing.
4. Discipline and Strict Regimen—Rules and Routine—"The Will to be Well."

X. Class and Demonstration

Supervision of Rest:
- A. Time of Day.
- B. Manner of Taking:
  1. Complete relaxation: (a) Position of patient at rest; (b) Support of all parts of body, including feet.
  2. Arrangement of chair in open air.
- C. Clothing:
  1. Adequate.
  2. Not too heavy.
- D. Protection from:
  1. Sun. 3. Rain.
  2. Wind. 4. Cold.

Diets:

A. Arrangement of Trays—Cleanliness and Attractiveness:
1. General diets.
2. Special diets as in laryngeal, intestinal, fever or severe hemorrhage cases.

B. Service of Foods:
1. Hot. 2. Cold.

C. Care of Dishes, Tray Cloths and Napkins.

D. Principal Precautions to be Observed in Dining Room:
1. Grouping.
2. Cough.
3. Expectoration.
4. Special care of napkins.
5. Care of hands before entering.

XI. Lecture. Treatment—General Principles, *Continued*

A. Supplemental Factors:
1. Exercise: (a) Walking; (b) Graduated Work; (c) Occupational and vocational therapy.
2. Climate: (a) Temperature; (b) Humidity; (c) Altitude; (d) Winds; (e) Dust and smoke.

B. Incidental Factors:
1. Drugs, patent medicines, alcohol, tobacco.
2. Tuberculin.
3. Artificial pneumothorax.
3. Heliotherapy.
4. Hydrotherapy.
5. Massage.

C. Tuberculin:
1. History.
2. Different preparations.
3. Diagnostic value.
4. Therapeutic value.

XII. Class and Demonstration

A. Supervision of Exercise:
1. Prescribed by physician:
   (a) Kind.
   (b) Length of time.
   (c) Clothing.
   (d) Effect of exercise on temperature, pulse, respiration.
   (e) Accurate record.

B. Recreational and Diversional Exercise:
1. Principal effects to be considered: (a) Physical; (b) Mental.
2. Demonstration by occupational therapeutist.

XIII. Lecture. Treatment of Complications and Special Conditions

A. Complications and Their Treatment:
1. Tuberculosis of larynx.
2. Tuberculosis of intestines.
3. Tuberculosis of joints.
4. Hemorrhage.
5. Pleural effusion.
6. Spontaneous pneumothorax.

B. Surgical Measures in Tuberculosis.

XIV. Class and Demonstration. Special Treatments in Tuberculosis

A. Hemorrhage:
   1. Control.
   2. Disposal of expectorated blood.
   3. Care of contaminated linen, etc.
B. Spontaneous Pneumothorax.
C. Special Surgical Technique:
   1. Tuberculin.
   2. Pneumothorax.
   3. Pleural puncture.

XV. Lecture. Given by Public Health or Social Expert

A. Organized Movement for Prevention of Tuberculosis.
   1. When it began.
   2. Leaders.
   3. Organization, etc.
B. Social and Economic Factors and Their Control:
   1. Housing.
   2. Overwork in industry.
   3. Low wages leading to undernourishment.
   4. Recreation—how related to occupation.
C. Sanitary Factors and Their Control:
   1. Personal and family hygiene.
   2. Community hygiene.
D. Educational Campaign:
   1. Literature; publications.
   2. Lectures, special campaigns, etc.
   3. Direct instruction, in homes, schools, etc.
E. Legislation:
   1. Compulsory reporting of cases.
   2. Compulsory and permissive laws establishing state and county sanatoria and public health nurses.
F. The Role of the Nurse in the Prevention of Tuberculosis:
   1. In the hospital.
   2. In clinics and dispensaries.
   3. In homes, visiting nurse associations, etc.

THE CALENDAR FOR 1922

The Committee on Publications of the National League of Nursing Education announces that a very attractive calendar for 1922 will be ready for distribution on November 15th. This calendar will be the first of a series that will be not only of direct historical value, but will give pleasure, and deepen our appreciation of the character, vision and accomplishments of the women who blazed the trail for modern nursing in America. The first of the calendar series will present the portraits of twelve nurses chosen by a most liberal expression of opinion, representing the entire country geographically, and the profession in all its departments; with brief biographical sketches that will give the reader not only a glimpse of the work and influences of the nurse, but of the woman as well. The cover will present a charming sketch of the first school for nursing under the Nightingale plan, set in an attractive border.

The Committee expects that whatever proceeds may accrue from the sale of this calendar will be used to maintain and develop the activities at the Headquarters of the three National Nursing Organizations, which is a cause that should interest every nurse.

The Committee will endeavor to reach the schools for nursing and alumnae associations, as well as nurses in the field, with a printed description including instructons for ordering.

The calendar will retail at $1.00 per copy. A ten per cent reduction on orders of fifty or over delivered in one shipment will be made. Address all inquiries and orders to Headquarters National Nursing Associations, 370 Seventh Avenue, New York City.